

# Cross-sectional Associations of Self-Reported Social/Emotional Support and Life Satisfaction with Smoking and Vaping Status in Adults

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## Introduction

- ❖ Smoking kills more than 8 million people each year worldwide.
- ❖ In 2019, approximately 34.1 million adults were cigarette smokers in the United States (US). In 2019, 4.5% of adults in the US were current e-cigarette users.
- ❖ While most smokers are willing to quit (55.1% of adult smokers in 2018), the success rates are very low (7.5% in 2018) even with different treatments including nicotine replacement therapy.
- ❖ It was suggested that positive social and emotional support is associated with successful smoking cessation.
- ❖ Low life satisfaction has been shown to be highly associated with substance use, including marijuana, alcohol, cannabis, and smoking.

## Aims/Objectives

- ❖ This study aimed to examine the cross-sectional association of self-reported life satisfaction and social/emotional support with smoking and vaping status using the US nationally-represented survey data

## Methods

- ❖ The study included 47,163 adult participants who self-reported social/emotional support, life satisfaction and smoking/vaping status in the 2016 and 2017 BRFSS national survey data.
- ❖ Six smoking and vaping categories: 1) Exclusive smokers; 2) Ex-smokers; 3) Current vapers who were ex-smokers; 4) Exclusive vapers; 5) Dual users; 6) Never users.
- ❖ The primary outcome variables of interest in this study include self-reported life satisfaction and social/emotional support. The variable for life satisfaction comes from the survey question “In general, how satisfied are you with your life?”. The variable for social/emotional support comes from the survey question “How often do you get the social and emotional support you need?”.
- ❖ Covariates controlled for in our statistical models, including age, gender, employment status, self-reported general health categories, and self-reported mental health (including stress, depression, and problems with emotions).
- ❖ To measure the association of smoking and vaping status with life satisfaction and social/emotional support, multivariable weighted logistic regression models were used to calculate adjusted Odds Ratios (aORs) and 95% Confidence Intervals (CIs).

## Results

**Table 1. Association of life satisfaction with smoking/vaping status.**

Low life satisfaction	Adjusted Odds Ratio (95% Confidence Interval)			
	All	Age: 18-34 (n = 7,459)	Age: 35-64 (n = 24,141)	Age: 65+ (n = 15,563)
Dual users vs. Never users	1.770 (1.135, 2.760)	2.719 (1.254, 5.896)	1.280 (0.763, 2.146)	1.882 (0.682, 5.190)
Ex-smokers vs. Never users	1.025 (0.806, 1.303)	1.516 (0.806, 2.852)	0.915 (0.674, 1.244)	0.795 (0.535, 1.183)
Exclusive smokers vs. Never users	1.452 (1.121, 1.880)	2.457 (1.439, 4.193)	1.127 (0.829, 1.532)	1.170 (0.747, 1.832)
Current vapers who were ex-smokers vs. Never users	1.335 (0.708, 2.517)	1.334 (0.387, 4.594)	1.474 (0.679, 3.201)	0.104 (0.014, 0.786)
Exclusive vapers vs. Never users	1.230 (0.440, 3.440)	1.599 (0.544, 4.701)	0.190 (0.016, 2.206)	0.013 (0.001, 0.161)
Exclusive smokers vs. Ex-smokers	1.416 (1.095, 1.831)	1.621 (0.788, 3.332)	1.231 (0.908, 1.670)	1.471 (0.947, 2.285)

**Table 2. Association of social/emotional support with smoking/vaping status.**

Low social/emotional support	Adjusted Odds Ratio (95% Confidence Interval)			
	All	Age: 18-34 (n = 7,459)	Age: 35-64 (n = 24,141)	Age: 65+ (n = 15,563)
Dual users vs. Never users	1.075 (0.768, 1.505)	0.923 (0.498, 1.710)	1.169 (0.801, 1.708)	1.061 (0.563, 2.000)
Ex-smokers vs. Never users	0.933 (0.835, 1.042)	0.806 (0.557, 1.165)	0.944 (0.809, 1.102)	0.942 (0.801, 1.108)
Exclusive smokers vs. Never users	1.193 (1.030, 1.381)	1.243 (0.909, 1.698)	1.100 (0.906, 1.335)	1.385 (1.061, 1.808)
Current vapers who were ex-smokers vs. Never users	1.148 (0.713, 1.847)	0.939 (0.437, 2.017)	1.354 (0.697, 2.629)	0.896 (0.306, 2.626)
Exclusive vapers vs. Never users	0.762 (0.412, 1.407)	0.757 (0.390, 1.466)	0.708 (0.209, 2.397)	0.014 (0.003, 0.071)
Exclusive smokers vs. Ex-smokers	1.279 (1.097, 1.492)	1.542 (1.003, 2.372)	1.165 (0.949, 1.430)	1.470 (1.125, 1.920)

## Conclusions

- ❖ Dual users and exclusive smokers were more likely to have low life satisfaction than never users, especially among young adults (age group 18-34). Exclusive smokers were more likely to have low life satisfaction than ex-smokers.
- ❖ Compared with never users, exclusive smokers were more likely to have low social/emotional support, especially among the elders (age group 65+). Exclusive smokers were more likely to have low social/emotional support than ex-smokers among age groups 18-34 and 65+.
- ❖ The associations of life satisfaction and social/emotional support with vaping are not conclusive due to small sample size.

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